

AMENDMENTS TO THE CLAIMS

Claim 1. (Currently Amended) A measuring device for measuring the properties of multi-segmented filters in the tobacco-processing industry, comprising:

a first measuring device located in and/or on a filter tipping machine at a position downstream of a combining station for combining components of the multi-segmented filters, the first measuring device comprising a first radiation source adapted to radiate light onto the multi-segmented filters, and a first radiation receiver adapted to receive light reflected off of the multi-segmented filters; and

a second measuring device located in and/or on the filter tipping machine at a position downstream of the first measuring device and downstream of a tipping station for wrapping the components with a tipping paper, the second measuring device comprising a second radiation source adapted to radiate light through the multi-segmented filters, and a second radiation receiver adapted to receive light transmitted through the multi-segmented filters;

wherein the second radiation source radiates light essentially uniformly along a longitudinal axial direction of the multi-segmented filters and the second radiation receiver is arranged within a conveying element adapted to convey at least the multi-segmented filters.

Claim 2. (Previously Presented) The measuring device according to claim 1, wherein the second radiation source comprises a plurality of individual radiation sources located in a receiving trough of the conveying element and arranged along the longitudinal axial direction of the multi-segmented filters.

Claim 3. (Previously Presented) The measuring device according to claim 2, wherein the individual radiation sources are light-emitting diodes.

Claim 4. (Previously Presented) The measuring device according to claim 1, wherein the second radiation receiver comprises a plurality of receiving elements that are arranged in a receiving trough of the conveying element, along the longitudinal axial direction of the multi-segmented filters.

Claim 5. (Previously Presented) The measuring device according to claim 4, wherein the receiving elements comprise photodiodes.

Claim 6. (Currently Amended) A system for measuring the properties of ~~rod-shaped articles in the tobacco processing industry or~~ components of rod-shaped articles in the tobacco industry that are subsequently combined to form rod-shaped articles comprising:

a first measuring device located in and/or on a filter tipping machine downstream of a combining station for combining the components, the first measuring device comprising a first radiation source adapted to radiate light onto the ~~rod-shaped articles or~~ components of rod-shaped articles, and a first radiation receiver adapted to receive light reflected off of the ~~rod-shaped articles or~~ components of rod-shaped articles; and

a second measuring device located in and/or on the filter tipping machine downstream of the first measuring device and downstream of a tipping station for wrapping the components with

a tipping paper, the second measuring device comprising a second radiation source adapted to radiate light through the ~~rod-shaped articles or~~ components of rod-shaped articles, and a second radiation receiver adapted to receive light transmitted through the ~~rod-shaped articles or~~ components of rod-shaped articles.

Claim 7. (Currently Amended) The measuring system according to claim 6, wherein the second radiation source radiates light essentially uniformly along a longitudinal axial direction of the ~~rod-shaped articles or~~ components of rod-shaped articles and the second radiation receiver is arranged within a conveying element adapted for conveying at least the components of rod-shaped articles.

Claim 8. (Currently Amended) The measuring system according to claim 6, further comprising a third measuring device adapted to measure the ~~rod-shaped articles or~~ components of the rod-shaped articles using light reflected off of the ~~rod-shaped articles or~~ components of the rod-shaped articles.

Claim 9. (Cancelled)

Claim 10. (Cancelled)

Claim 11. (Currently Amended) The measuring system according to claim ~~[[10]]~~ 6,

wherein the first measuring device is adapted to be arranged on and/or in a transfer drum located downstream of a first drum which combines the components of the rod-shaped articles.

Claim 12. (Currently Amended) The measuring system according to claim [[9]] 8, wherein the ~~second and/or~~ third measuring device is ~~adapted to be~~ arranged in a region located downstream of a tipping station where an article is wrapped at least partially with a tipping paper.

Claim 13. (Currently Amended) The measuring system according to claim [[10]] 6, wherein the combining station consists at least in part of drums.

Claim 14. (Currently Amended) The measuring system according to claim 6, wherein the first radiation source radiates the ~~rod-shaped articles or~~ components of rod-shaped articles within a measuring range, and the first radiation receiver receives the radiation reflected by ~~the articles or the components~~.

Claim 15. (Currently Amended) The measuring system according to claim 14, wherein the first radiation receiver comprises a plurality of receiving elements arranged in a row.

Claim 16. (Currently Amended) The measuring system according to claim 14, wherein the first radiation receiver is a position-sensitive receiver that extends in at least one direction and comprises a charge-coupled device (CCD).

Claim 17. (Currently Amended) A filter tipping machine with a system for measuring the properties of rod-shaped articles in the tobacco-processing industry or components of rod-shaped articles that are subsequently combined to form rod-shaped articles comprising:

a first measuring device located downstream of a combining station for combining the components, the first measuring device comprising a first radiation source adapted to radiate light onto the rod-shaped articles or components of rod-shaped articles, and a first radiation receiver adapted to receive light reflected off of the rod-shaped articles or components of rod-shaped articles; and

a second measuring device located downstream of the first measuring device and downstream of a tipping station for wrapping the components with a tipping paper, the second measuring device comprising a second radiation source adapted to radiate light through the rod-shaped articles or components of rod-shaped articles, and a second radiation receiver adapted to receive light transmitted through the rod-shaped articles or components of rod-shaped articles wherein the second measuring device is adapted for measuring the properties of multi-segmented filters and the second radiation source radiates light essentially uniformly along the longitudinal axial direction of the multi-segmented filters;

wherein the second radiation receiver is arranged within a conveying element adapted to convey at least the multi-segmented filters.

Claim 18. (Currently Amended) A quality assurance method for filter cigarettes with

multi-segmented filters comprising:

reflecting radiation off of filter components of the multi-segmented filter in a first measuring device located on a filter tipping machine downstream of a combining station for combining the filter components, and measuring a first measured value of the reflected radiation;

comparing the first measured value to first set values;

discarding the filter cigarette or components of the filter cigarette if a difference between the first measured value and the first set values exceeds a first preset tolerance range;

subsequently transmitting radiation through the filter components of the multi-segmented filter, and a tipping paper surrounding the filter components, in a second measuring device located on the filter tipping machine downstream of the first measuring device and downstream of a tipping station for wrapping the filter components with a tipping paper, and measuring a second measured value of the radiation transmitted through the filter components and the tipping paper;

comparing the second measured value to second set values; and

discarding the filter cigarette or the components of the filter cigarette if a difference between the second measured value and the second set values exceeds a second preset tolerance range.

Claim 19. (Cancelled)

Claim 20. (Previously Presented) The method according to claim 18, further comprising:

reflecting radiation off of the tipping paper in a third measuring device and measuring a third measured value of the reflected radiation;

comparing the third measured value to third preset values; and

discarding the filter cigarette or the components of the filter cigarette if a difference between the third measured value and the third preset value exceeds a third preset tolerance range.